Please amend the claims by substituting the following listing of claims for the claims in the application as filed.

1 (Currently Amended). A ~~magnetically enhanced~~ plasma source apparatus comprising:

a substrate having a first surface;

a second surface, said second surface being spaced apart from said first surface by a predetermined gap, ~~first and second surfaces with a gap between the surfaces, wherein the first surface comprises a substrate and wherein at least the second surface is~~ connected to a power supply as a cathode;

a third surface connected to the power supply as an anode;

a magnetic field source providing a magnetic field, said ~~a~~ magnetic field passing into both ~~the~~ said first and second surfaces and through ~~the~~ said gap ~~between the surfaces~~, ~~wherein at least a portion of the~~ said magnetic field having a portion passing through said ~~the~~ substrate is at least two times stronger at ~~the~~ said first ~~substrate~~ surface than at ~~the~~ said second surface, said magnetic field portion having a strength ~~along that field line and is~~ strong enough to magnetize electrons; and

an electric field ~~created by the power supply connected between~~ extending to said ~~the~~ second surface and ~~the third surface~~, ~~wherein the~~ said electric field penetrating ~~penetrates~~ into an electron confining region of said ~~the~~ magnetic field.

2 (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 1, wherein:

~~the third surface also comprises the~~ said electric field extends to said substrate.

3 (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 1, ~~wherein~~ comprising:

a chamber, ~~the~~ said chamber containing said first and second surfaces ~~are contained in a chamber comprising grounded walls,~~ ; and

said electric field extends from said chamber to said substrate

~~wherein the third surface is the grounded chamber walls~~.

4 (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 1, ~~wherein~~ comprising:

~~one of the~~ relative movement between said substrate and ~~the~~ said magnetic field ~~is moved relative to the other~~.

5 (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 1, wherein:

said substrate comprises said ~~the~~ second surface ~~is covered by the substrate~~.

6 (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 1, wherein:

said ~~the~~ substrate is biased positively.

7 (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 1, wherein:

said ~~the~~ substrate is tied to ground.

8 (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 1, wherein:

said ~~the~~ substrate is left floating.

9 (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 1, wherein:

said ~~the~~ substrate is biased negatively.

10 (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 1, wherein:

~~an AC voltage is used to bias the~~ said substrate is biased with an AC voltage.

11 (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 1, wherein:

said first and second surfaces are parallel.

12 (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 1, wherein:

said first and second surfaces are non-parallel.

13 (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 1, wherein:

said ~~the~~ substrate comprises a flexible web supported by a conveyor roll.

14 (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 1, comprising:

a ~~wherein the~~ mirror field [[~~is~~]] shaped into a racetrack and having a ~~with the~~ return field passing through the center of the racetrack.

15 (Currently Amended). A plasma source apparatus comprising:

a substrate comprising a first surface;

a second ~~at least two surfaces with a gap between the surfaces, wherein at least a portion of one of the surfaces is a substrate and wherein at least the~~ non-substrate surface ~~is~~ connected as a cathode electrode;

a gap between said first and said second surfaces;

a mirror magnetic field extending between said first and said second ~~the~~ surfaces through said ~~the~~ gap; ~~, wherein~~

at least a portion of said ~~the~~ magnetic field ~~entering~~ at said first ~~the substrate~~ surface ~~contains field lines~~ being at least two times as strong as said magnetic field at said second surface ~~those field lines entering the cathode electrode~~;

at least one anode structure disposed such that a closed loop electron Hall current containment region is formed within said ~~the~~ mirror magnetic field; ~~, where upon with~~

~~sufficient gas pressure and voltage between the cathode electrode and the anode structure,~~

a plasma ~~is formed~~ in ~~the~~ said containment region; and

~~wherein~~ one of ~~the~~ said substrate and said ~~the~~ plasma is moved relative to the other.

16. (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 15, wherein:

~~the~~ substrate comprises a flexible web supported by a conveyor roll.

17. (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 15, wherein:

said ~~the~~ substrate is treated by ~~the~~ said plasma with a treatment selected from the group consisting of: a chemical vapor deposition process, a sputter coating process, an ion etch process, and combinations thereof.

18. (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 15, wherein:

~~the~~ said substrate ~~containing surface~~ is electrically floating.

19. (Currently Amended). ~~The invention of~~ A plasma source apparatus in accordance with claim 15, wherein:

said ~~the~~ substrate ~~containing surface is the~~ comprises an anode.

20 (Currently Amended). A method of producing a plasma, comprising the steps of:

providing a plasma source inside a process chamber, said plasma source comprising first and second surfaces with a gap between the surfaces; ~~, wherein the~~ providing a substrate comprising said first surface; ~~comprises a substrate and~~ connecting said ~~wherein at least the~~ second surface ~~is connected~~ to a power supply as a cathode; providing a third surface ~~connected~~ and connecting said third service to ~~the~~ said power supply as an anode;

providing a magnetic field passing into both said ~~the~~ first and second surface and through said ~~the~~ gap ~~between the surfaces, wherein~~ at least a portion of said ~~the~~ magnetic field ~~passing through the substrate is at least two times stronger~~ at said first ~~the substrate~~ surface being at least twice as strong as said magnetic field at said ~~than at the~~ second surface ~~along that field line~~ and ~~is~~ strong enough to magnetize electrons; ~~and~~

providing an an electric field ~~created by said power supply connected~~ between said ~~the~~ second surface and said ~~the~~ third surface, ~~wherein the~~ said electric field ~~penetrates~~ penetrating into an electron confining region of ~~the~~ said magnetic field;

adjusting the pressure of said enclosed space between about 1 mTorr and about 100 mTorr; and

introducing a process gas into said process chamber;

~~operating said power supply to impress a voltage between about 300 volts and about 2000 volts between said anode and said cathode;~~

~~operating said power supply to impress a voltage between about 300 volts and about 2000 volts between said anode and said cathode;~~

~~forming a plasma between said cathode and said substrate, wherein the substrate is treated by the plasma with a treatment selected from the group consisting of: a chemical vapor deposition process, a sputter coating process, an ion etch process, and combinations thereof~~.